

Notice of Allowability

Application No.

09/655,595

Examiner

Thomas H. Stevens

Applicant(s)

BEAUSOLEIL ET AL.

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 02/21/2006.
2. ☒ The allowed claim(s) is/are 1-5.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

1. Claims 1-5 were examined.

Section I: Drawings

2. Drawing 5 is accepted but will be admitted as a new sheet since a 5th drawing was never submitted.

Section II: Allowable Subject Matter

3. Claims 1-5 are allowed.

Examiner's Amendment

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Eugene Worley (Registration number 47,186) and Jeffery Miller (Registration number 35,287) on, 4/26/06. The amendments are as follows:

- Claim 1, line 5, after the word "at" delete the word -- the -- .
- Claim 1, line 6, after the word "determining" delete the word -- the -- .
- The amended specification submitted 06/01/2004 to page 1, lines 5-25, has been changed to the following:

-- Cross Reference to Related Applications:

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The following copending applications, assigned to the assignee of the present invention, contain common disclosure and are incorporated herein by reference in their entireties:

"High Speed Software Driven Emulator Comprised of a Plurality of Emulation Processors with an Improved Bus the Streams Data at High Speeds," Serial No. 09/656,147, filed September 6, 2000 (Attorney Docket No. POU9-2000-0046-US1), now US Patent 6,850,880.

"High Speed Software Driven Emulator Comprised of a Plurality of Emulation Processors with a Method to Allow High Speed Bulk Read/Write Operation Synchronous DRAM While Refreshing the Memory," Serial No. 09/656,541, files September 6, 2000,(Attorney Docket No. POU9-2000-0047-US1), now US Patent 6,901,359.

"High Speed Software Driven Emulator Comprised of a Plurality of Emulation Processors with a Method to Allow Memory Read/Write Without Interrupting the Emulation," Serial No. 09/656,596, filed September 6, 2000,(Attorney Docket No. POU9-2000-0048-US1), now US Patent 6,665,542.

"High Speed Software Driven Emulator Comprised of a Plurality of Emulation Processors with Improved Multiplexed Data Memory," Serial No. 09/656,146, filed

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September 6, 2000, (Attorney Docket No. POU9-1999-0183-US1), now US Patent 7,043,417. –

5. The following is an examiner's statement of reasons for allowance:

While US Patent 5,352,123 teaches (claim 1) [a] hardware logic emulation system that includes at least two printed circuit boards having a plurality of interconnected emulation processor integrated circuits disposed thereon so that the hardware logic emulation system can execute an emulation program corresponding to a logic design; US Patent 3,903,380 and Donath "Placement and Average Interconnection Lengths of Computer Logic" teaches (claim 1) the printed circuit boards being interconnected; US Patent 3,903,380 teaches (claim 1) a multi-conductor cable with and corresponding outputs at the other cable end; US Patent 4,100,721 teaches (claim 5) a method for determining length of a multi-conductor cable; US Patent 6,694,464 teaches (claim 5) a hardware logic emulation system, the emulation system having a first printed circuit board having a plurality of interconnected emulation processor disposed thereon electrically communicating with a second printed circuit board having a plurality of interconnected emulation processor integrated circuits disposed thereon via the multi-conductor cable so that the hardware logic emulation system can execute an emulation program corresponding to a logic design, the multi-conductor cable having a plurality of inputs at one end and the corresponding plurality of outputs at the other end; US Patent 5,452,231 teaches (claim 5) integrated circuits, none of these references, taken either alone or in combination, with the prior art of record discloses

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(claim 1) "...inputs at one end of the cable... a method for determining the length of the cable while the cable is installed in the emulator thereby interconnecting the printed circuit boards...prior to installing the cable, interchanging the inputs or outputs of at least one pair of conductors of the multi-conductor cable to denote a cable length; inputting a test pattern to the cable, said test pattern comprised of binary data; collecting an output data pattern from the cable that results from the test pattern; determining the cable length from the output pattern; compiling an emulation program to account for each interchanged pair of conductors, the emulation program corresponding to a logical design for an integrated circuit,"

(claim 5) "prior to installing the cable, interchanging the inputs or outputs of at least one pair of conductors of the multi-conductor cable to denote a cable length; inputting a test pattern to the cable, said test pattern comprised of binary data; collecting an output data pattern from the cable that results from the test pattern; determining the cable length from the output pattern; compiling an emulation program so that the interchanged pair of conductors is accounted for when the emulation program is run on the emulation system"

in combination with the remaining elements and features of the claimed invention. It is for these reasons that the applicants' invention defines over the prior art of record.

Furthermore, the claims are novel in view of the prior art (i.e., Donath and Butts (US Patent 5,452,231)) cited within the previous office action.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Correspondence Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-3715, Monday-Friday (8:00 am- 4:30 pm EST).

If attempts to reach the examiner by telephone are unsuccessful, please contact examiner's supervisor Mr. Paul Rodriguez 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Answers to questions regarding access to the Private PAIR system, contact the Electronic Business Center (EBC) (toll-free (866-217-9197)).

April 25, 2006

TS


Paul L. Rodriguez 5/1/06
Primary Examiner
Art Unit 2125

"New Sheet"

Replacement Sheet

"Enter"

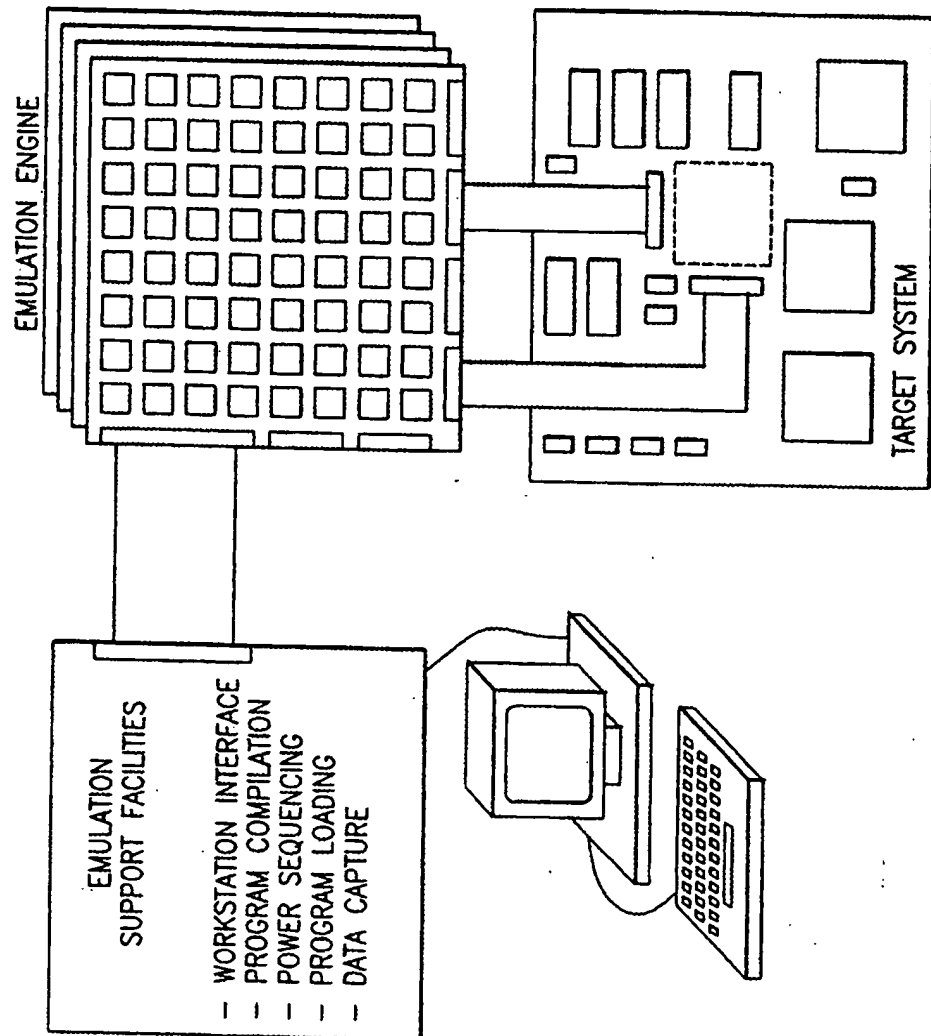


Fig. 5